INSTRUCTION MANUAL

MANUAL DE INSTRUCCIONES

Pocket Color LCD Television

Televisor color con pantalla de cristal líquido

英 西 B/C/D

CASIO

Thank you for purchasing the CASIO TV-400 pocket Color LCD television. To fully enjoy the features of this unit and to ensure years of trouble-free operation, be sure to carefully read this manual and follow the instructions contained herein.

English 1
Español 32

MAIN FEATURES

- High-resolution color LCD screen
- High Quality Matrix System
- Auto Tuning
- Built-in low power drain speaker
- Both VHF and UHF tuning capabilities
- Four-way power supply system

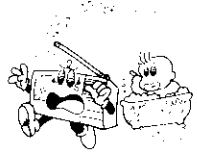
CONTENTS

MAIN FEATURES 1
CAUTIONS 3
GENERAL GUIDE 5
BATTERY INSTALLATION 9
BATTERY LIFE 10
WATCHING THE TELEVISION 11
TUNING 15
OPTIONAL POWER SOURCES 16
EXTERNAL ANTENNAS 22
TROUBLESHOOTING 25
SPECIFICATIONS 29

CAUTIONS

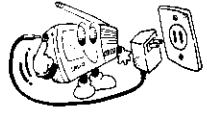
• Never attempt your own maintenance
Your TV consists of precision electronic components. Never touch or tamper with the interior.

• Avoid water and dust
Do not expose the unit to dust or extreme humidity.

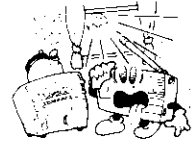


• Do not use thinners or other chemical cleaners
Use a soft cloth slightly dampened with a mild soap solution to clean the exterior of your TV.

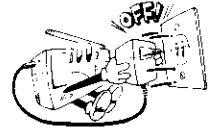
• Only use specified adaptors and power sources
Use only the power sources specifically mentioned in this manual.



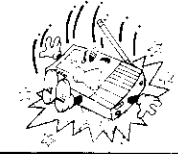
• Do not expose to temperature extremes or direct sunlight
Do not leave your TV in direct sunlight, near a heater or in a car with the windows closed.



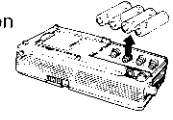
• Turn power OFF when not in use and unplug the adaptor
Be sure to remove the adaptor from the wall socket (mains) or car cigarette lighter socket.



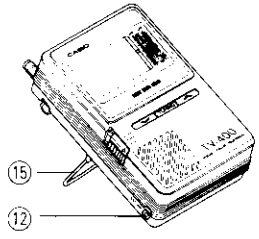
• Avoid dropping and strong impact
Take care to avoid dropping your TV or knocking it over. Be particularly careful of the display screen. Avoid putting the TV in your pocket or purse together with such hard objects as lighters, keys, etc.

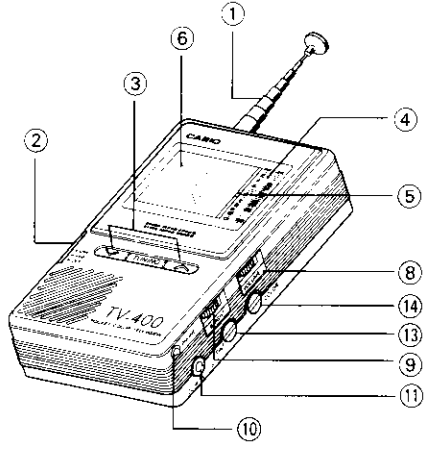


• Remove batteries
When you do not use your TV for extended periods, be sure to remove the batteries or the rechargeable battery pack. Old batteries can leak causing damage and malfunction of the unit.



GENERAL GUIDE



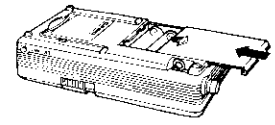


① Rod antenna
8-section telescoping type.

② Function selector (UHF/VHF/OFF)

UHF:	UHF band
	CH 14—69 (Model B)
	CH 21—69 (Model C)
	CH 21—68 (Model D)
VHF:	VHF band
	CH 2—13 (Model B)/CH 2—12 (Model C)
OFF:	Power turned OFF

⑦ [Rear panel]



Battery compartment

③ Tuning keys (TUNING)
Used to select the station of your choice. Pressing the ^ key will automatically tune in the nearest higher receivable station. Pressing the ˇ key will automatically tune in the nearest lower receivable station.

④ Channel display
Shows both UHF and VHF channel numbers.

⑤ Tuning indicator
An LCD indicator shows which channel is currently tuned in. There is no indication when the power of the unit is switched OFF.

⑥ **Color LCD screen**
Displays the television picture.

⑦ **Battery compartment**
Holds batteries

⑧ **Volume control (VOLUME)**
Used to adjust the volume of the sound for the program being viewed.

⑨ **Brightness control (BRIGHT)**
Used to adjust the brightness of the picture being shown on the screen.

⑩ **Earphone jack (PHONE)**
For connection of the accessory earphone.

⑪ **External power source jack (DC IN 6V)**
For connection of the AC adaptor or car adaptor.

⑫ **External antenna jack (EXT-ANT)**
For connection of an optional RF connector, a commercially available external antenna or car antenna.

⑬ **Tint control (TINT) — (Except models C and D)**
Used to control the balance between red and green in the picture being shown on the screen.

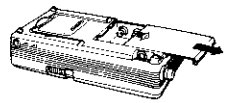
⑭ **Color control (COLOR)**
Used to control the brightness of the colors of the picture being shown on the screen.

⑮ **Stand**
Used to support the TV in an upright position for easy viewing.

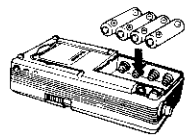
BATTERY INSTALLATION

① Set the function selector to OFF.

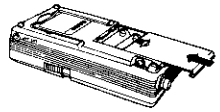
② Remove the battery compartment cover by sliding it in the direction of the arrow indicated in the figure.



③ Load four batteries ensuring that the poles (⊕ / ⊖) are facing in the proper directions.



④ Replace the battery compartment cover.



BATTERY LIFE

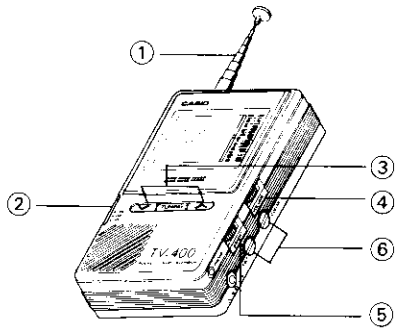
The table below shows the average life expectancy of batteries used with your TV. The values shown are for continuous use at 20°C (room temperature), normal volume. Using a high volume setting or using your unit under very hot or cold conditions will shorten actual battery life.

Battery Type	Battery Life
AM-3	3 hours
SUM-3	1 hour

The first indication of weakening batteries will be a reduction in volume followed by unstable picture quality and sound. At this time, replace batteries with a full set of new ones.

- The batteries supplied with your TV are test batteries (SUM-3) which have a shorter life span than that noted above.
- Always replace all batteries.
- Never mix battery types.
- Always remove batteries when the unit will not be used for extended periods to avoid damage caused by possible battery leakage.

WATCHING THE TELEVISION



① Extend the rod antenna.

② Use the function selector to select either VHF or UHF.

③ Press either of the tuning keys, ▽|△, and the tuning indicator will move to the next receivable channel. Repeat this operation until the desired channel is tuned in. (See page 15)

④ Use the volume control to set the sound to a suitable level.

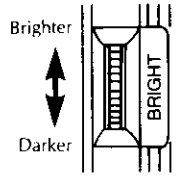
⑤ Use the brightness control to adjust the brightness of the picture.

⑥ If necessary, use the tint and color controls to adjust the color of the picture. (See page 14)

NOTE

In low temperatures, it will take some time for the fluorescent material to illuminate, or the light will take on a reddish tinge. This does not indicate malfunction of the backlight. Normal operation will resume after a short while.

NOTES



• Brightness adjustment
The brightness of the screen changes with the viewing angle. Therefore, make adjustments after determining the viewing angle.

• Tuning indicator
The selected channel is released when the power of the TV is turned OFF and also when you switch between VHF and UHF bands. The tuning indicator is not displayed when the power of the TV is OFF. When the function selector is switched to VHF or UHF, the tuning indicator will appear from the middle of the channel display and automatically stop when it reaches a receivable channel.

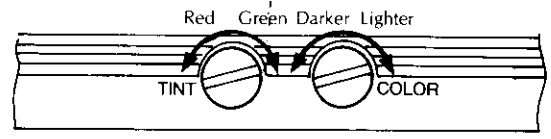
• Rod antenna
Adjust the length, angle and direction of the rod antenna until the picture is clear. If reception is poor, use a commercially available external antenna (see page 22). Refold the rod antenna in order from the thickest section first.

• Stand
The stand located on the back of the TV is convenient for standing the unit up on a table or other surface.

• Color adjustment
The TINT and COLOR controls are used to adjust the color of the picture on the LCD.

COLOR: Controls the darkness of the color
Turning to the left makes the color darker, and turning to the right makes it lighter.

TINT: Controls the tint of the color
Turning to the left increases red and turning to the right increases green.



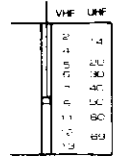
TUNING

① Press either the ﹀ or ﹀ tuning key and the tuning indicator will begin to search for a receivable channel.

② When a receivable channel is found, the indicator will stop.

③ Continue pressing either of the tuning keys until the desired channel is found.

Tuning indicator



NOTES

The tuning indicator "wraps around" from the bottom of the channel display to the top and vice versa.

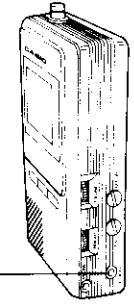
Example: If the tuning indicator is at channel 13 in VHF, pressing ﹀ will cause the indicator to return to channel 2.

Under poor reception conditions, the tuning indicator may continue to move without stopping because the auto tuner cannot detect weak broadcasts. In this case, use a commercially available external antenna or relocate the TV to a place where reception is better.

OPTIONAL POWER SOURCES

■ AC Household current (mains)

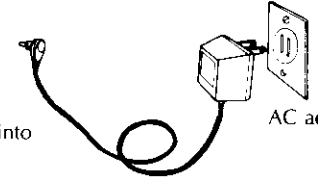
The optional AC adaptor allows the TV to be powered by standard household current.



External power source jack (DC IN 6V)

① Insert the plug of the AC adaptor into the DC IN jack of the TV.

② Plug the adaptor into an AC wall outlet.



AC adaptor

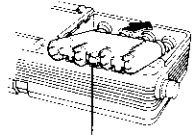
Rechargeable battery pack

The optional NP-K63 rechargeable battery pack allows recharging of the battery power supply as required. The optional AC adaptor (see page 16) is used for recharging.
Since batteries lose power during their shelf life, always charge a new battery pack for about 6 hours before using it for the first time.

<Recharging the battery pack>

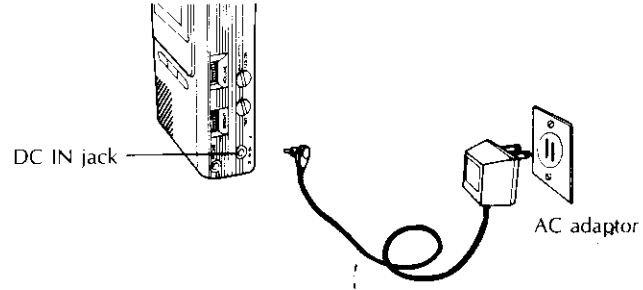
① Set the function selector to OFF.

② Insert the battery pack into the battery compartment making sure that the poles (⊕ / ⊖) are facing in the proper directions. A tab is provided on the battery pack to ensure that polarity is correct. This tab fits into a slot located inside of the battery compartment.



Tab

③ Insert the plug of the optional AC adaptor into the external power jack of the TV and plug the adaptor into an AC wall outlet.



NOTE

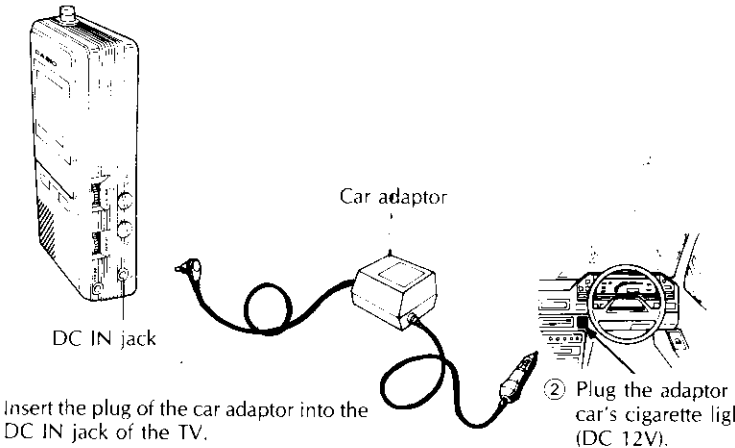
A 6-hour charge will allow approximately 1.5 hour of viewing. (Continuous viewing at room temperature.) The actual viewing time for the initial charge of a new battery pack may be shorter. As the battery pack loses power, the volume begins to weaken. Next, picture and sound quality become unstable. The battery pack should be recharged at this time.

CAUTION

- Charging longer than necessary (6 hours maximum) can reduce the life of the battery pack.
- Disconnect the AC adaptor from the TV and from the wall socket after charging is complete.
- Recharging cannot be performed while the TV is in operation.
- It is recommended that the battery pack be recharged every 3 months even if the TV is not used.
- The battery pack loses some of its recuperative ability with each charging. After about 300 charges a battery pack will provide only about half the viewing time of a new pack and should be replaced.

■ Car battery (DC 12V)

The optional car adaptor allows the TV to be powered by a car battery through the vehicle's cigarette lighter. You should never, however, attempt to watch television while operating a motor vehicle.



① Insert the plug of the car adaptor into the DC IN jack of the TV.

② Plug the adaptor into a car's cigarette lighter (DC 12V).

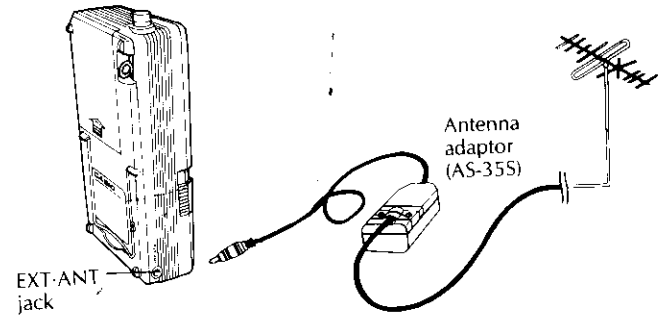
CAUTION

- Never connect the car adaptor to cigarette lighters for such vehicles as trucks or busses that use 24V DC electrical power.
- Only use specified Casio adaptors. The manufacturer will in no way be held responsible for damage caused by using non-specified adaptors.
- When an adaptor is plugged into the DC IN jack, the battery power source is automatically switched OFF.
- Adaptors may become warm to the touch after extended periods of use. This is normal and is no cause for alarm.
- If adaptors are used for extended periods, batteries should be removed from the TV to protect the unit from damage from possible battery leakage.
- Unplug adaptors from the wall socket or the car cigarette lighter when not in use to protect the TV from damage and to avoid running down the car battery.

EXTERNAL ANTENNAS

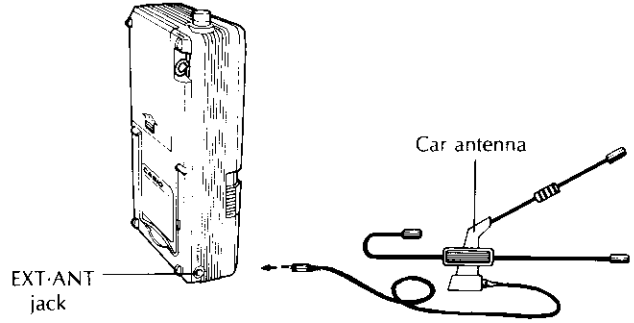
■ Outdoor antenna

If you are located in a remote area, among ferro-concrete structures or in a mountainous region, reception can be adversely affected. In this case, purchase an antenna adaptor (AS-35S) with a 3.5ϕ mini plug connector and connect it to your outdoor antenna. Insert the plug of the adaptor into the EXT·ANT jack of the TV.



■ Car antenna

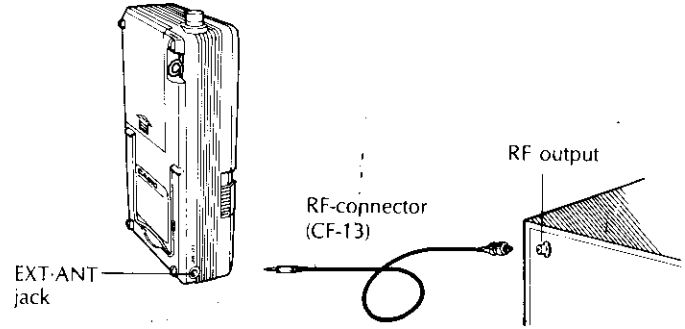
A commercially available car antenna with a 3.5ϕ mini plug connector can be used for better reception in motor vehicles.
Reception may be unstable when the vehicle is in motion due to fluctuations in signal wave conditions. Consult the instruction manual for your antenna for details.



Remember: NEVER ATTEMPT TO WATCH TV WHILE DRIVING.

■ RF connector (optional)

The optional RF connector (CF-13) allows the TV to be used as a video cassette recorder monitor, etc.
Note that the jack used depends on the type of connector.



TROUBLESHOOTING

Check the following points before assuming malfunction of the TV.

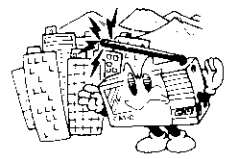
Symptoms		Possible causes	What to do
Picture	Sound		
No picture	No sound	1. Dead batteries or battery pack. 2. Polarity of batteries incorrect. 3. AC adaptor or car adaptor not properly connected.	1. Replace batteries or recharge pack. 2. Reinsert batteries making sure poles are properly aligned. (See page 9) 3. Correctly connect adaptor. (See pages 16 & 20)
No picture	Noise	1. Not properly tuned.	1. Adjust tuning (See page 15)
Picture visible	No sound	1. Volume control dial turned too low. 2. Earphone inserted.	1. Turn up volume. 2. Disconnect earphone.

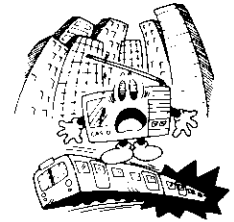
Symptoms		Possible causes	What to do
Picture	Sound		
Picture all white	Sound heard	1. Brightness control not set correctly.	1. Adjust brightness control.
Picture not clear (picture moves up or down, disappears periodically, becomes fuzzy or blurred, is doubled, etc.)	Sound heard	1. Rod antenna folded. 2. Not properly tuned. 3. Battery power low. 4. Interference from automobiles, electric appliances, etc. 5. Reception bad due to weak signals, buildings, mountains, etc.	1. Extend rod antenna. Adjust angle and direction for best reception. 2. Adjust tuning. 3. Replace batteries. 4. • Move further away from appliance causing interference. • Change antenna position. 5. In locations with poor reception, it may not be possible to get a clear picture or any picture at all. (See page 28)

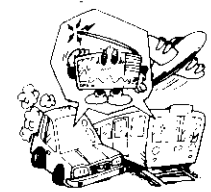
Symptoms		Possible causes	What to do
Picture	Sound		
Picture dark or blurred	Sound heard	1. Brightness control needs adjusting.	1. Adjust brightness.
Color light, not present	Sound heard	1. Color control not properly set. 2. Rod antenna not extended.	1. Adjust COLOR control. (See page 14) 2. Extend rod antenna and set to proper angle.
Color irregular	Sound heard	1. TINT control not properly set.	1. Ajust TINT control. (See page 14)

Locations where TV reception is bad

- Far away from broadcasting stations, among ferro-concrete structures or near mountains.
- Underground, in tunnels or in ferro-concrete buildings.
- Near high-tension wires, neon signs, or radio stations whose frequencies interfere.
- Near railroads, highways or airports.
- In trains or cars.







SPECIFICATIONS

Type:	Color LCD television
Reception Frequencies:	UHF: ch 14—ch 69 (Model B)/ch 21—ch 69 (Model C) ch 21—ch 68 (Model D) VHF: ch 2—ch 13 (Model B)/ch 2—ch 12 (Model C)
Display Element:	High resolution color liquid crystal display (twisted nematic type)
Drive System:	HQM (High Quality Matrix) system
Screen Size:	2 inches (28 mm (H) × 53 mm (W))
Backlight:	High luminance fluorescent material
Antennas:	VHF, UHF, rod antenna
Speaker:	$1\frac{1}{8}\phi$ inches (28 mm) × 1
Connection Terminals:	External antenna jack (3.5ϕ mini) Earphone jack (3.5ϕ mini) External power jack (DC IN 6.0V)
Power Supply:	4-way power supply system Batteries — 4 AA-size dry batteries AC — AC adaptors AD-K64/AD-K65 (option) Car battery — Car adaptor CA-K64 (option) Rechargeable battery pack NP-K63 (option)

Power Consumption:	Approx. 3W (model B), Approx 3.3W (models C and D)
Dimensions:	$1\frac{1}{4}$" (H) × 3" (W) × 5" (D) 31 mm (H) × 77 mm (W) × 129 mm (D)
Weight:	11.3 oz 320 g (including batteries)
Standard Accessories:	Test batteries (SUM-3 × 4), Earphone, Soft case

Specifications and design are subject to change without notice.

NOTES

The TV-400 model B is tuned for American standard NTSC (M) system which is adopted in the following countries.

American Samoa, Antigua and Barbuda, Bahamas, Barbados, Belize, Bermuda, Burma, Bolivia, Canada, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Haiti, Honduras, Jamaica, Kampuchea, Mexico, Micronesia, Nicaragua, Panama, Peru, Philippines, Puerto Rico, Saint Christopher & Nevis, Saint Lucia, South Korea, Surinam, Taiwan, Trinidad and Tobago, U.S.A., Venezuela

The TV-400 model C is tuned for CCIR standard PAL (B/G/H) system which is adopted in the following countries.

Afghanistan, Algeria, Australia, Austria, Bahrain, Bangladesh, Belgium, Brunei, Central African Rep., Denmark, Equatorial Guinea, Ethiopia, Finland, Ghana, Greenland,